

# Tree/Shrub Establishment

## Conservation Practice Job Sheet

**MA-612**



### Definition

Establishing woody plants by planting seedlings, cuttings, direct seeding or natural regeneration.

### Purpose

To establish woody plants for forest products, wildlife habitat, long-term erosion control and improvement of water quality, treat waste, reduction of air pollution, sequestration of carbon, energy conservation, to maintain or restore natural genetic diversity and enhance aesthetics.

### Where used

Establish trees/shrubs on any area where woody plants can be grown.

**NOTE:** The Forest Site Preparation (Code 490) Job Sheet should always be used in conjunction with this job sheet.

### Operation and maintenance

Replace dead and dying woody species in newly established plantings. To maintain a planting, excessive water flows and erosion must be controlled upslope of the planted area. New plantings must be protected from grazing during the establishment (prescribed grazing, use exclusion) period, as well as fire and pests, including insects, diseases, competing vegetation and animals (deer, beaver and mice).

Supplemental water as well as periodic applications of nutrients maybe needed to maintain plant health and vigor. Trees and/or shrubs can eventually become crowded slowing their growth and the growth, survival and composition of understory species. As the plants mature, periodic harvesting of some of the overstory trees and shrubs becomes an important activity for maintaining plant health and productivity.

### Considerations

When underplanting, trees should be planted sufficiently in advance of overstory removal to ensure full establishment.

Use locally adapted seed, seedlings or cuttings. Priority will be given to plant materials that have been selected and tested in tree/shrub improvement programs. All plant materials should comply with the minimum standards, established by the American Nursery and Landscape Association, 1250 I Street Northwest, Suite 500, Washington, DC.

Plans for landscape and beautification plantings should consider foliage color, season and color of flowering, and mature plant height and width. Where multiple species are available to accomplish the planned objective, consideration should be given to selecting species which best meet wildlife needs. Tree/shrub arrangement and spacing should allow for and anticipate the need for future access lanes for purposes of stand management.

Residual chemical carryover should be evaluated prior to planting. Species considered locally invasive or noxious should not be used. Species used to treat waste should have fast growth characteristics, extensive root systems, capable of high nutrient uptake, and may produce wood/fiber products in short rotations. For optimal carbon storage, select plant species that are adapted to the site to assure strong health and vigor and plant the full stocking rate for the site.

### Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the MA NRCS Field Office Technical Guide. See practice standard and Supplemental Specifications for Tree/Shrub Establishment, code 612 and Forest Site Preparation, code 490 for specific requirements.

## Tree/Shrub Establishment – Job Sheet

<i>For:</i>	<i>Farm #:</i>
<i>Field(s):</i>	<i>Tract #:</i>
<i>Designed By:</i>	<i>Approved By:</i>
	<i>Signature:</i>
<i>Date:</i>	<i>Date:</i>

Purpose (check all that apply)	
<input type="checkbox"/> Forest Products	<input type="checkbox"/> Reduction of Air Pollution
<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Sequestration of carbon
<input type="checkbox"/> Long-term erosion control	<input type="checkbox"/> Energy Conservation
<input type="checkbox"/> Improvement of Water Quality	<input type="checkbox"/> Maintain or restore natural genetic diversity
<input type="checkbox"/> Waste Treatment	<input type="checkbox"/> Aesthetic enhancement

Type of Planting		
<input type="checkbox"/> Planting in Open Areas	<input type="checkbox"/> Natural Regeneration	<input type="checkbox"/> Seeding
<input type="checkbox"/> Interplanting	<input type="checkbox"/> Clearcut Regeneration	<input type="checkbox"/> Interseeding
<input type="checkbox"/> Underplanting	<input type="checkbox"/>	<input type="checkbox"/>

Woody Plant Materials Information -							
Field	Ac	Species/cultivars:	Plants/acre:	Total No.	Kind of stock <sup>1</sup> :	Planting dates:	Avg. Spacing <sup>2</sup> :
							Ft X Ft
							Ft X Ft
							Ft X Ft
							Ft X Ft
							Ft X Ft
							Ft X Ft
							Ft X Ft
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							Ft X Ft

<sup>1</sup>BArroot, COntainer, CUtting; include size, caliper, height, and age as applicable. <sup>2</sup>Spacing between plants to achieve plants/acre.

Plants/acre = 43,560 (ft<sup>2</sup>/ac) ÷ [Between-Row Spacing (ft) X In-Row Spacing (ft)]

## Tree/Shrub Establishment – Job Sheet

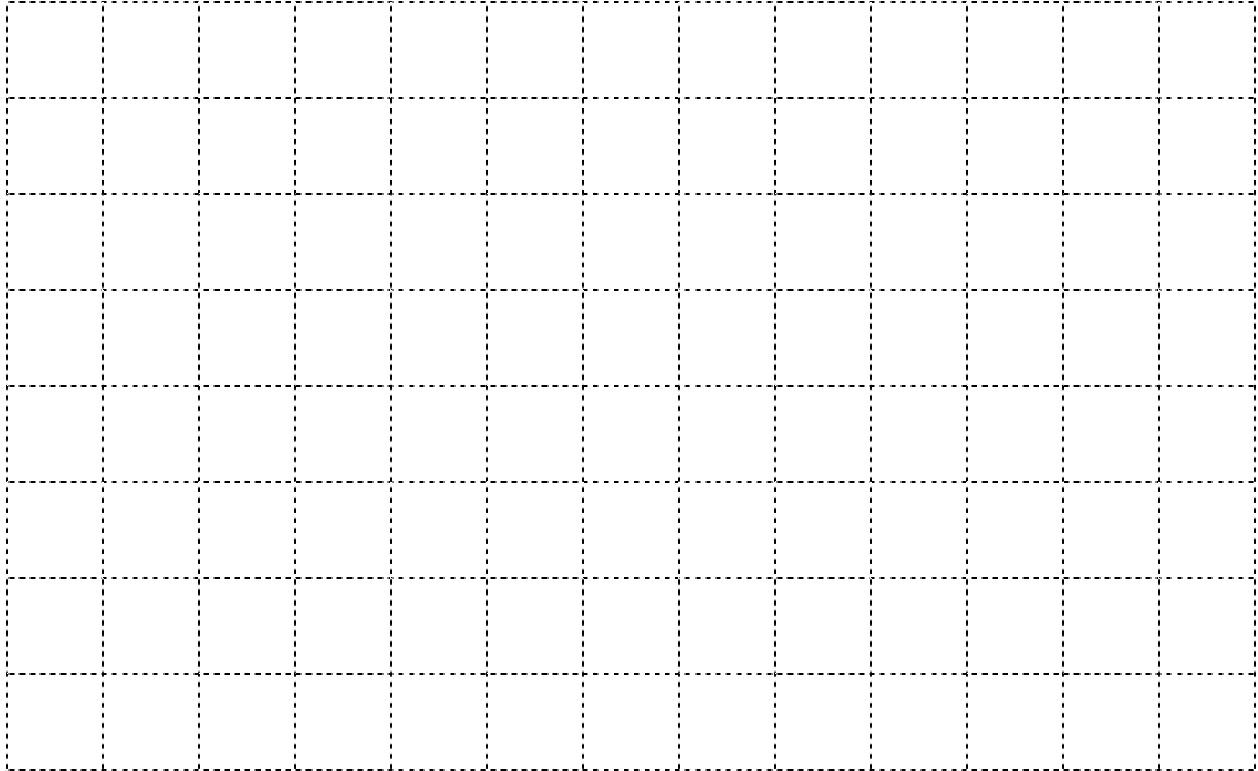
<b>Temporary Storage Instructions (Refer to MA Standard and Specification 612)</b>		
<p><i>Planting stock that is dormant may be stored temporarily in a cooler or cool, moist, darkened area up to 3 days. For more than 3 days or for stock that is expected to begin growth before planting, dig a V-shaped trench (heeling-in-bed) sufficiently deep and bury seedlings so that all roots are covered by soil. Pack the soil firmly and water thoroughly. Additional requirements:</i></p>		
<b>Site Preparation See MA Standard and Specification and Job Sheet 490 – Forest Site Preparation</b>		
<b>Planting Method (Refer to MA Standard and Specification 612)</b>	<b>Hand</b>	<b>Machine (circle and indicate amount)</b>
<p><i>For container and bareroot stock, plant stock to a depth even with the root collar in holes deep and wide enough to fully extend the roots. Pack the soil firmly around each plant. Cuttings are inserted in moist soil with at least 2 to 3 buds showing above ground. Plants will be established prior to <b>May 30</b> unless containerized seedlings are used or plants will be watered. Additional requirements or special planting instructions:</i></p>		
<b>Cultural Practices (Refer to MA Standard and Specification 612 for specific requirements)</b>		
<p><i>Pest Management is required. Weed control is necessary, either by mechanical cutting, herbiciding or mulching for at least 2 years after planting.</i></p> <p><i>Vegetation Mat-Size _____ # _____ Tree Shelter-Size _____ # _____</i></p> <p><i>Mulch- coverage _____ # _____ Other _____</i></p> <p><i>Additional requirements:</i></p>		
<b>Operation and Maintenance</b>		
<p><i>The planted area must be inspected periodically and protected from damage so proper function is maintained. Replace dead or dying tree/shrub stock to provide adequate plant densities as described in the 612 standard and continue control of competing vegetation to allow proper establishment for at least 2 years. Periodic harvesting of trees and shrubs may be necessary to maintain the health and vigor of mature stands. Keep large dead and dying trees for cavity nesting birds and a source of large wood in aquatic habitats. Additional requirements:</i></p>		

Questions regarding the planting or maintenance of the tree/shrub establishment should be directed to:

## Tree/Shrub Establishment – Job Sheet

If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Scale 1"= \_\_\_\_\_ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



Additional Specifications and Notes:

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